

REMARKS

By this Amendment, claims 1, 11 and 16 have been amended. No claims have been canceled, and no new claims have been added to the application. Accordingly, claims 1-16 are pending in the application. No new matter has been added to the application.

In the prior Office Action, the Examiner first stated on the top of page 2 that claims 15-31 were objected to as being misnumbered on grounds that claims 13 and 14 were omitted. The Examiner requested that the claims 15-31 be renumbered as claims 13-29 in a subsequent amendment. Applicants verified using the Office's PAIR system that only sixteen claims were submitted with the application, and that all sixteen claims were sequentially numbered as claims 1-16. Accordingly, applicants suspect that the statements made by the Examiner on the top of page 2 of the prior Office Action were inadvertent. Applicants have not renumbered the claims as requested.

Next, the Examiner rejected claims 1-15 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Pat. No. 6,998,051. The Examiner stated that the only difference between the invention claimed in claims 1-15 of the present application and the invention claimed in claims 1-20 of the '051 patent is that the claims of the '051 patent positively recite that the supercritical fluid is maintained as a supercritical phase during precipitation of the particles. The Examiner contended that it would have been obvious to one of ordinary skill in the art to have modified the method as claimed in the '051 patent to include a limitation that the supercritical fluid is maintained as a supercritical phase since the instant claims, which recite that the solution is contacted with the supercritical fluid to extract and precipitate the solute, suggest that the supercritical fluid is in a supercritical state when the extraction and precipitation occurs.

The Examiner is absolutely correct that the extraction of the first solvent from the solution as claimed in the present invention does, in fact, occur when the supercritical fluid is in a supercritical state. However, the invention claimed in claims 1-20 of the '051 patent involves contacting an emulsion with a supercritical fluid to extract the solvent in the discontinuous phase of the emulsion. In contrast, the invention claimed in claims 1-

15 of the present application involves contacting a solution with a supercritical fluid to extract one of at least two solvents from the solution. Applicants respectfully submit that this is a patentable distinction. Nevertheless, in order to overcome the double patenting rejection, applicants have filed a terminal disclaimer in compliance with 37 C.F.R. §1.321(c).

Finally, the Examiner rejected claims 1-16 under 35 U.S.C. §102(b) as being anticipated by Sievers et al., U.S. Pat. No. 5,639,441. Sievers et al. discloses a method for forming fine particles of a desired substance that involves: (a) dissolving the substance in a fluid to form a solution; (b) mixing the solution with a second fluid that becomes a gas upon rapid pressure release and with which the first fluid is at least partially immiscible; and (c) releasing the pressure to form an air-borne dispersion or aerosol comprising particles (see Abstract). Sievers et al. teaches that the second fluid can be a supercritical fluid such as supercritical carbon dioxide (see col. 6, lines 25-28). Sievers et al. also teaches that co-solvents, antisolvents or mixtures of several mutually soluble components such as water and methanol can be used (see col. 6, lines 53-56), presumably as the first fluid. However, in every case, Sievers et al. teaches that particle formation occurs when there is a rapid pressure reduction, causing one of the fluids to form a gas, which causes the formation of a gas-borne dispersion of fine particles (see, e.g., col. 5, lines 4-7).

In contrast to the method disclosed in Sievers et al., the method of the present invention involves contacting a solution that comprises a first solvent, a second solvent and a solute that is soluble in the first solvent but not in the second solvent, with a supercritical fluid. The first solvent, which is soluble in the supercritical fluid, is extracted from the solution into the supercritical fluid causing the solute to precipitate into the second solvent, which is not soluble in the supercritical fluid, to form a suspension of particles in the second solvent. The first solvent is separated from the suspension of particles in the second solvent when the supercritical fluid is in a supercritical state. The resulting product is a suspension of particles in the second solvent, not a gas-borne dispersion of particles (as in Sievers et al.).

By this Amendment, applicants have amended claims 1, 11 and 16 to make it absolutely clear that the first solvent is extracted from the solution to precipitate the

solute into the second solvent to form a suspension of solute particles in the second solvent, and that the first solvent is separated from the suspension of particles when the supercritical fluid is in a supercritical state. The amendments to claims 1, 11 and 16 clearly distinguish the present invention from Sievers et al., which never suggests extraction of any solvents from a solution when the supercritical fluid is in a supercritical state.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge the same to Deposit Account No. 18-0160, Order No. FER-14668.001.

Respectfully submitted,

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